

Dart Hawkesbury 1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada Tel (613) 632-5200

Purchasing Receipts

	Supplier	No	IAO	Term			For Part No	Project	Equipment ID	Order	Due Date	Received Quantity	Accounting Job No	Seria No	Statu	Receive Date	Price/Unit	Aging Days
0038929	MEC002- VU	3	1	Net 30	M7075T8S1.000X	7075-T6 Sheet1** Thick Plate X 5** Wide: MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft				12	2/23/2018	12		S04463	Stock		\$ 21.75/ft	(
		4				75. M7075T6S1.250** X2.750** Cut From Plate: MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QC-A-250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft						12		804483	Stock	2/22/2018	\$ 34.30 / ft	0
					M/07\$T6\$6.000X0.2	6" Thick Plate X 0.25" Wide: MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft				36		36		6044632	Stock	2/22/2018 \$	20.75/ft	0
		7		. M	7777576S0.375X6.00	0 7075-T6S Sheet .375" Thick Plate X 6" Wide: MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft				12.		12	St	044633 S	Stock 2	22/2018 \$ 2	75.68 / ft	0
		9				7075-T6S Sheet 2" Thick Plate X 0.75" Wide: MAT'L 7075- T6/T62 ALUMINUM SHEET SPECS QQ-A-250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR PER ASTM B209 MAT'L 7075- T6/T62 ALCLAD ALUMINUM SHEET SPECS QQ-A-250/13 OR AMS-QQ-A- 250/13 OR AMS 4049 OR PER ASTM B209 SASTM B209 SASTM B209 SASTM B209 SOR SASTM B209						12	, 904	344634 St	ock 2/2	2/2018 \$ 18	.47/ft	0
	12			M707	: 77 A S G A 24	1075-T6 Sheet 1.250"* X 2.000"* MATERIAL: 075-T6/T62 LUMINUM HEET AS PER IQ-A-250/12 OR MS-QQ-A- 500/12 OR AMS D45 OR ASTM 209 receive ft						12	S044i	635 Stoo	ck 2/22/	2018 \$ 20.1.	2/8	0

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No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Serial No	Status	Receive Date	Price/Unit	Aging Days
		13				M7075T6S0.375 X 5.000 : MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM 3209 receive fi						12		S044636	Stock	2/22/2018	\$ 18.10 / ft	0
									Total:	108		108		-	_			-

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CERTIFICATE OF CONFORMANCE PACKING SLIP

Page 1 of 1

Shipment_No:3519256 DART AEROSPACE LTD HAWKESBURY, ON 3519256-2 1270 ABERDEEN BOL No Deliver To: K6A 1K7 CA DART AEROSPACE LTD HAWKESBURY, ON MANITOULIN 1270 ABERDEEN KGA 1K7 CAN Carrier Ship To: HAWKESBURY, ON K6A 1K7 DART AEROSPACE LTD Freight Terms 1270 ABERDEEN Prepaid Sold To: ORIGIN F.0.B. MISSISSAUGA, ON L5N 2150 ARGENTIA ROAD A. M. CASTLE & CO. Date Shipped Ship From: 21-FEB-18 CAN 2K7

Final Destination Branch - TOR

Shipment Details

Order No Line No Item No Description Addition						
ALL PAPERWORK MUST FOLLOW ORD ALL MATERIAL MUST HAVE IDENTIFYIN Email P/s and certs to: clavoie@dartaero. END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PAI END USE: COMMERCIAL AIRCRAFT PAI CONSTELLIUM ROLLED PRODUCTS 152188.MO MIII/Source H-at Number ROLLED PRODUCTS	Order No	Line No		Descripti	on A	
ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DE ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com	5033891		752188.MO	1.0000.PL SLIT 2SID PLATE 3P Email P/s	27075.T651.AL ÚMINUM.US DED TO 5 IN (1250/000 AW SPECIFICATIONS; AMS and certs to: clavoie@dans	1.48.5000.144.5000 10 IN) X 144.5 IN () - ALUMINUI 5-QQ-A-250/12
ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF D ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS CONSTELLIUM ROLLED PRODUCTS 1.00 PCS 1.00	Purchase Ord		Part Number	Ordered	Otv	Povojce Otv
ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF D ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS CONSTELLUM ROLLED PRODUCTS ALL MATERIAL MUST FOLLOW ORDER / CUSTOMER AT TIME OF D ALL MATERIAL MUST FOLLOW Marking IN Intended Inten	38929			1.00 PCS		100000
Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS CONSTELLIUM ROLLED PRODUCTS Email P/s and certs to: clavoie@dartaero.com Mech Id PCS Width (IN) Length (IN) The products of the product of	Details	ALL PAF ALL MA	PERWORK MUST FOLI TERIAL MUST HAVE ID	OW ORDER / CUS	TOMER MUST RECEIVE AT NGS EX:HEAT #'S	TIME OF DELIVERY
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CONSTELLIUM ROLLED PRODUCTS Width (IN) Length (IN) Length (IN) Length (IN)		END US	E: COMMERCIAL AIRC	RAFT PARTS		
CONSTELLIUM ROLLED PRODUCTS (54.0.0.5.9)	Delivery No.	Mill/Source		_		
	121613058	ROLLED PRODUCTS		4		

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We hereby ceruly the material covered by this certification conjours in accordance. Lest reports are on fire subject to examination. All claims for defective material are

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Name: FEB 2 1 2018

Abons and has been found to meet the applicable requirements for the material, including any specifications forming it part of the rescription witning to A.M. Castle A.Co., within 60 days of the shipment. Material cut to the customes cannot be returned.



CERTIFICATE OF CONFORMANCE PACKING SLIP/

Page 1 of 1

Shipment. No: 3519256.

SEURY, ON CAN SEURY, ON CAN CAN L. 7075.T651.Atsuminu DED TO 2.75 IN () 12 MM PLATE SAW SPEC and certs to: clavoie@ Quy TOMER MUST RECEIN INGS EX:HEAT #'S	Ship From:		Sold To:	Ship To:	Deliver To:	
F.O.B. Freight Terms Carrier BOL No	A. M. CASTLE 2150 ARGENTI MISSISSAUGA 2K7 CAN	& CO. IA ROAD ON L5N	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K CA			CE LTD
ORIGIN Prepaid MANITOULIN 3519256-2 Line No Item No Description 1.2500.Pt. 7075.T651.At-UMINUM.USI.48.5000.14 1.2500.Pt. 7075.T651.At-UMINUM.USI.48.5000.14 1.2500.Pt. 7075.T651.At-UMINUM.USI.48.5000.14 1.2500.Pt. 7075.T651.At-UMINUM.USI.48.5000.14 1.2500.Pt. 7075.T651.At-UMINUM.USI.48.5000.14 ALUMINUM PLATE SAW SPECIFICATIONS: AMS Email Plys and certs to: clavoie@dartaero.com Ordered Qty 1.00 PCS 1.00 PCS 1.00 PCS 1.00 PCS 1.00 PCS Email Plys and certs to: clavoie@dartaero.com END USE: COMMERCIAL AIRCRAFT PARTS III/Source Heat Number Mech Id PCS Width (IN) Length (IN) OLLED DOLLED 1.00 PCS 1	Date Shipped	F.O.B.	Freight Terms	Carrier	BOL No	
Line No Item No Description 1.2500.PL.7075.T651.AEUMINUM.USI.48.5000.14 2 752114.MO CUT 2SIDED TO 2.75 IN () 1.2504.0000 IN) x 14 ALUMINUM PLATE SAW SPECIFICATIONS: AMS Email P/s and certs to: clavoie@dartaero.com Ordered Qty 1.00 PCS ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DIE END USE: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS III/Source Heat Number Mech Id PCS Width (IN) Length (IN) OLLED ADDUCTS ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DIE END USE: COMMERCIAL AIRCRAFT PARTS III/Source Heat Number Mech Id PCS Width (IN) Length (IN) OLLED ADDUCTS	21-FEB-18	ORIGIN		MANITOULIN	3519256-	2
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1.2500.PL.7075.T651.Att winvolvers 1.2500.14 2	Order No	Line No		Description	An and a second	
ase Order No ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DE ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S END USE: COMMERCIAL AIRCRAFT PARTS FY No. Mill/Source Heat Number ROLLED PRODUCTS Ordered Qty 1.00 PCS Invoice Quantaero.com Remail P/s and certs to: clavoie@dartaero.com END USE: COMMERCIAL AIRCRAFT PARTS FY No. Mill/Source Heat Number RouleD PRODUCTS Mill/Source Heat Number Ameth (IN) Length (IN)	5033891	2	752114.MO	CUT 2SIDED TO 2.75 IN (ALUMINUM PLATE SAW) Email Pls and certs to cla	MINUM.USI.48.5000.14 1250/0000 IN) X 1 SPECIFICATIONS: AMS	14.5000 44.5 IN () - 5-QQ-A-250/12
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ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DISTRIBUTED BY SING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@darlaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS Y No. Mill/Source Heat Number Mech Id PCS Width (IN) Length (IN) ROLLED PRODUCTS MECH DART RECEIVE AT TIME OF DISTRIBUTED BY SINGLED PRODUCTS MECH DART RECEIVE AT TIME OF DISTRIBUTED BY SINGLED PRODUCTS MECH DART RECEIVE AT TIME OF DISTRIBUTED BY SINGLED PRODUCTS	38929			1.00 PCS	1 00 PCS	
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ROLLED PRODUCTS PRODUCTS	Delivery No.	Mill/Source	Heat Number	d PCS	idth (IN) Length (IN)	Shipped Qtv(LBS)
	121613058	CONSTELLIU ROLLED PRODUCTS	U	-		51.4127

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We heroby ceasify the national covered by this certification conforms in accordance with the above specification to make the application of the application of the state of the phonent. Material cut to the correct site, and the custome cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative

| Date: | Name: |



CERTIFICATE OF CONFORMANCE PACKING SLIP

Page 1 of 1

_Shipment No: 35:19256 DART AEROSPACE LTD HAWKESBURY, ON 3519256-2 1270 ABERDEEN BOL No Deliver To: K6A 1K7 CA DART AEROSPACE LTD HAWKESBURY, ON 1270 ABERDEEN MANITOULIN K6A 1K7 CAN Carrier Ship To: HAWKESBURY, ON K6A 1K7 DART AEROSPACE LTD Freight Terms 1270 ABERDEEN Prepaid Sold To: ORIGIN F.O.B. MISSISSAUGA, ON L5N 2150 ARGENTIA ROAD A. M. CASTLE & CO. Date Shipped Ship From: 21-FEB-18 CAN 2K7

Final Destination Branch - TOR

Shipment Details

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				Email P	PEATE SAW SPECIFICATIONS: AMS-QQ-A-250/12 Email P/s and certs to: clavoie@dartaero.com	CATIONS: An clavoie@dar	MS-QQ-A-250/ taero.com	12
Purchase Order No	er No	Part Numb	umber	Ordered Qty	1 Qty		Invoice Otv	tv
38929				3.00 PCS	S		3.00 PCS	
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	END U	Email P/s and certs END USER: DART	Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE	ero.com				
	END U	ISE: COI	END USE: COMMERCIAL AIRCRAFT PARTS	PARTS				
Delivery No.	Mill/Source		Heat Number	Mech Id	PCS	Width (IN)	Length (IN)	Width (IN) Length (IN) Shipped Qtv(LBS)
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							V.9.	
)				THE PERSON NAMED AND PARTY OF	

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Reviewed by Authorized Castle Meials Hepresentative.

We hereby certify the instantal cavered by this certification conforms in accordance with fee and Last reports are on tife subject to e-animation. All claims for defective material are far contactions.

Strations forming a part of the description that out by the customer cannot be returned

Allows and has been found to meet the applicable requirements for the malenal, vactuating whiting to A.M. Casife & Co. within 60 days of the shrinnen. Material cut to the correct sure.

EE8 2010 018 | Name:



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PACKING SLIP/ CERTIFICATE OF CONFORMANCE

A. M. Castle & Co.

Page 1 of 1

A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA. ON L5N 2K7 CAN				
	-	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA
Date Shipped	F.O.B.	Freight Terms	Carrier	BOL No
21-FEB-18	ORIGIN	Prepaid	MANITOULIN	3519256-2
Shipment Details			Final Destination Branch - TOR	IOR
Order No	Line No	Item No	Description	
5033891	4	750067.MO	0.3750.PL.7075.T651.NLUMINUM.48.5000.144.5000 CUT 25UDED TO 6 IN () + .1250/0000 IN) × 144.5 IN () PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12 Email P/s and certs to: clavoie@dartaero.com	NUM.48.5000.144.5000 50/0000 IN) X 144.5 IN () - ALUMINUM NS: AMS-QC-A-250/12 ie@dartaero.com
Purchase Order No		Part Number	Ordered Qty	Invoice Qtv
38929			1.00 PCS	1.00 PCS
Details	ALL PAPERWOR ALL MATERIAL N Email P/s and cert END USER: DAR END USE: COMM	ALL PAPERWORK MUST FOLLOW ORDER / ALL MATERIAL MUST HAVE IDENTIFYING N Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS	ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS	SEIVE AT TIME OF DELIVERY
o	Mill/Source	Number	Mech Id PCS Widt	Width (IN) Length (IN) Shipped Qty(LBS)
121613058 KAISER ALUMIN	ALUMINUM	245158B		34.0636

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PACKING SLIP/ CERTIFICATE OF CONFORMANCE

Page 1 of 1

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Ship From:		Sold To:	Ship To:	Deliver To:
A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N		DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON
2K7 CAN	Š		K6A 1K7 CAN	K6A 1K7 CA
Date Shipped	F.0.B.	Freight Terms	Carrier	BOL No
21-FEB-18	ORIGIN	Prepaid	MANITOULIN	3519256-2

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				PLA	PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12 Email P/s and certs to: clavoie@dartaero.com	TCATIONS: Al	MS-QQ-A-250/ rtaero.com	12
Purchase Order No	er No	Part N	Part Number	Orde	Ordered Qty		Invoice Qtv)tv
38929				1.00	1.00 PCS		1.00 PCS	
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Delivery No.	Mill/Source	Ξ	Heat Number	Mech Id	d PCS	Width (IN)	Width (IN) Length (IN)	Shipped Otv(I BS)
121613058	KAISER ALUMINUM	E	24750689	hay	~			22.6215

We hereby catify the material covered by this certification conforms in accordance with the above for full control of the case of the announce of the stronger of the stronger

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PACKING SLIP/ CERTIFICATE OF CONFORMANCE

Page 1 of 1

Shipment No:3519256 DART AEROSPACE LTD HAWKESBURY, ON 3519256-2 1270 ABERDEEN BOL No Deliver To: K6A 1K7 CA DART AEROSPACE LTD HAWKESBURY, ON K6A 1K7 CAN MANITOULIN 1270 ABERDEEN Carrier Ship To: HAWKESBURY, ON K6A 1K7 DART AEROSPACE LTD Freight Terms 1270 ABERDEEN Prepaid Sold To: ORIGIN F.O.B. MISSISSAUGA, ON LSN 2150 ARGENTIA ROAD A. M. CASTLE & CO. Date Shipped Ship From: 21-FEB-18 CAN

Shipment Details	ails		IL.	inal Des	Final Destination Branch - TOR	TOR		
				1	1			
Order No	Line No	Item No	0	Description	100			
5033891	9	752114.MO	1	2500.PL	1.2500.PL.7075.T651.ALUMINUM.USI.48.5000.144.5000	IINUM.US	1.48.5000.14	4 5000
				LATE S/	COT-2SIDED TO 2 IN () .1250/0000 IN) X 144.5 IN PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12	250/000 DNS: AMS	3-00-A-250/	COT 2SIDED TO 2 IN () . 1250/0000 IN) X 144.5 IN () - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12
Purchase Order No		Part Number	10	Ordered Oto	Ordered Oty	nemman	lancom	
38929				1 00 PCS			1 00 DOG	ruy Turk
Details	ALL MAT	ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS. EX: HEAT #''S	LOW ORDER	R / CUST	TOMER MUST RE	CEIVE AT	TIME OF D	ELIVERY
	Email P/s END USE	Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE	@dartaero.co CE	mo		2		
	END USE	END USE: COMMERCIAL AIRCRAFT PARTS	CRAFT PAR	TS				
Delivery No.	Mill/Source	Heat Number	Mec	Mech Id F	PCS Widt	th (IN)	Width (IN) Length (IN)	Shinned Otv/I RC
121613058	CONSTELLIUM ROLLED PRODUCTS	100000000000000000000000000000000000000	pre					37.3911

Reviewed by Authorized Castle Metals Hepresentative.

Date Printed: 21-FEB-2018 02:44:32 PM

We hereby certify the material covered by this certification centerns in accordance will lest reports are on file subject to examination. All claims to defective material are will as

for and has been found to most the aupticable requirements for the material. As the specifications forming a part of the description ting to A.M. Castle A.C. within 60 days of the shupment. Material cut to the configuration material cut by the customer cannot be returned

Name:



PACKING SLIP CERTIFICATE OF CONFORMANCE

A. M. Castle & Co.

Page 1 of 1

Chi. C.			4	Shipment No:3519256_
A M CASTIL		Sold To:	Ship To:	Deliver To:
A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN	& CO. IA ROAD I, ON LSN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON KGA 1K7 CA	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY. ON KGA 1K7 CAN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA
Date Shipped 21-FEB-18	F.O.B.	Freight Terms	Carrier	BOL No
	11		MANICOLIN	3519256-2
anipment Details	SIIS		Final Destination Branch - TOR	OR
Order No	Line No	o Item No	Description	
5033891	7	750067.MO	0.3750.PL.7075.T651.ALUMINUM.48.5000.144.5000 COT 2SUDED TO 5 IN + .1250/0000 IN) X 144.5 IN PLATE SAW SPECIFICATIONS: AMS-QO-A-250/12	0.3750.PL.7075.T651, ALUMINUM.48.5000.144.5000 COT 28IDED TO 5 IN + .1250/0000 IN) X 144.5 IN () - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12
Purchase Order No	er No	Part Number	Ordered Other	e@uartaero.com
38929			1 00 PCS	Invoice Oty
Details	ALL PA ALL MA	ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HFAT #'S	ER/CUSTOMER MUST REC VG MARKINGS EX:HFAT #'S	EIVE AT TIME OF DELIVERY
	END US	Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS	com	
Delivery No.	Mill/Source	Mumber	d PCS	Width (IN) Longer (IN) SE
121613058	KAISER ALUMINUM	24515881		28.3863

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We hereby certify the material covered by this certification contours in accordance with me above fast reports are on the subject to examination. All chims for defective material ary 4-4 od units for credit

Roviewed by Authorized Castia Metals Roprosentative.

Serie Wall

Applications and has been found to most the applicable requirements for the restered, inchang any specifications forming a nart of the dissociations of the shipment. Material cut to the correct sign or material cut by the customer cannot be returned.

| Date: | Name:



Dart Aerospace Ltd. 1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada

PURCHASE ORDER PO038929

Tel (613) 632-5200

Supplier:

MEC002-VU

Metaux Castle

P.O. Box 4090 Stn A

Toronto

ON

M5W OE9 Canada

PO No:

PO038929

PO Date:

2/1/18

Due Date:

2/26/18

Purchase Order

Revision: Revision Date:

Ship-To Contact:

Contact: Phone:

5-MAILED

Ship To:

1270 Aberdeen Street

Hawkesbury

ON

K6A 1K7 Canada Phone: 613-632-5200 Via:

Ground

Pymt Terms:

Net 30

Freight Terms:

Special Comments:

	Filone. 015 002 020			ороски.	-					
			Iten	ns			1		Unit	Extended
Line	Part	Supplier Part No	Description	Status	Due Date	Order Quantity			Price (USD)	Price \$5,164.0
1 1	M7075T73B4.000x4.000		7075-T73 Bar 4.0 X 4.0 Grain Direction Along 4" Wide : MATERIAL: 7075-T73 OR 7075- T7351/T73510/T73511 BAR PER AMS-QQ-A- 200/11 OR AMS-QQ-A- 225/9 OR AMS 4124 OR AMS-QQ-A-250/12 OR AMS 4078 receive ft	Firmed	2/26/18	48 ft	48 ^{tt}		\$107.58333/ft DAS 11 9-89 16 2018	\$3,104.0
ine Item Note	12 PCS CUT AT 4 FT LO	NG				0.44	0.4	6 ft	\$145.75/ft	\$874.5
	M17-4-H1150-R4.000		17-4 SS H1150 Round Bar 4.000" : MATERIAL: 17-4 PH CONDITION H1150 receive ft	Firmed	2/26/18		Oft		FEB 1 3 20	8DAS 11 \$261.0
3	M7075T6S1.000X5.000		7075-T6 Sheet1" Thick Plate X 5" Wide : MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	2/26/18	12 ft	12'	12 ft	FEB 2 2 20	
4	M7075T6S1.250X2.750		M7075T6S1.250" X2.750" Cut From Plate : MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	2/26/18	12 ft	12	12 ft	\$34.30/ft FEB 2 2 201	

			Iten	ns					Unit	Extended
_ine	Part	Supplier Part No	Description	Status	Due Date	Order Quantity			Price (USD) \$20 75/ft	Price \$747.0
5	M7075T6S6.000X0.250		7075-T6S Sheet 6" Thick Plate X 0.25" Wide MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft		2/26/18	36 ft	36	36 π	FEB 2 2 20	18 DAS 14 9-89
6	M7075T6S7.000X2.000		7075-T6S Sheet 7" Thick Plate X 2" Wide: MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft		2/26/18		560 49 45		\$78 52/ft FEB 1 6 20	\$3,768 9 DAS 11 9-89 \$308.1
7	M7075T6S0.375X6.000		7075-T6S Sheet 375" Thick Plate X 6" Wide : MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209		2/26/18	12 ft	12	12 ft	FEB 2 2 2 70	DAS 9-89
8	M7075T6B1.000X00.250		receive ft 7075-T6 Bar 1.000' X 0.250" : MATERIAL: 7075-T6 OR T651/T6510/T6511/T62 ALUMINUM BAR AS PER AMS-QQ-A-225/9 OR AMS 4122/4123/4186/4187 OR PER AMS-QQ-A- 200/11 receive ft		2/26/18	12 ft		BU	\$9.92/ft	\$119.(\$221.
9	M7075T6S2.000X0.750		7075-T6S Sheet 2" Thick Plate X 0.75" Wide MAT'L 7075-T6/T62 ALUMINUM SHEET SPECS QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR PER ASTM B209 MAT'L 7075-T6/T62 ALCLAD ALUMINUM SHEET SPECS QQ-A-250/13 OR AMS-QQ-A-250/13 OR AMS-QQ-A-250/13 OR AMS-QQ-A-250/13 OR AMS 4049 OR PER ASTM B209 receive ft		2/26/18	12 ft	12		\$18.47/ft EB 2 2 7018	DA'

_		T - 11	Iten		Due	Order	Received		Unit	Extended Price
Line	Part	Supplier Part No	Description	Status	Date	Quantity	Quantity 0 ft		Price (USD) \$182.19/ft	\$1,115 9
10	M7075T6S4.500X5.000		7075-T6S Sheet 4.500" Thick X 5.000" Wide : MATERIAL: 7075- T6/T62/T651	Firmed	2/26/18	6.125 ft	aft			
			ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft				4200		EB 1 3 2018 DAS 11 0-89	
11	M7075T6S1.000X2.500		7075-T6S Sheet 1" Thick Plate X 2.5" Wide	Firmed	2/26/18	12 ft	0 ft	12 ft	\$30.42/ft	\$365 (
			: MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft				12		FEB 1 6 20	9-89
12	M7075T6S1.250X2.000		7075-T6 Sheet 1.250" X 2.000" : MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A-	Firmed	2/26/18	12 ft	12	12 ft	\$20.12/ft	\$241.4 DAS 9-89
			250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft						FEB 2 2 20	18 \$217 2
13	M7075T6S0.375X5.000		M7075T6S0.375 X 5.000 : MATERIAL: 7075- T6/T62 ALUMINUM	Firmed	2/26/18	12 ft	12	12 ft	\$18.10/ft	DAS
			SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft						FEB 2 2 20°	

Order Notes

Procurement Quality Clauses

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Chantal Lavoie

From:

Desbiens, Marc <mdesbien@amcastle.com>

Sent:

Monday, January 22, 2018 1:34 PM

To:

Chantal Lavoie

Subject:

RE: quote

Good Morning Chantal,

price an delivery on mat'l.

7075t73 bar 4" \times 4" \times 12 ft cut in section of 4 ft grain direction along 4" \sim

Offer plate \$ 1291.00 Lot 2-3 weeks

12 PCS at 41+

p4970-041.

17-4 h1150 round bar 4" x 6 ft \$ 145.75 FT 8-9 days

Bar or sheet acceptable

7075t6 Sheet 1" x 5" x 12 ft \$ 21.75 Ft 2-3 weeks 7075t6 sheet 1.250" x 2.750" x 12 ft \$ 34.30 Ft 2-3 weeks

7075t6 sheet 6" x 0.250" x 36 ft \$ 20.75 Ft 2-3 weeks

7075t6 sheet 7" x 2" x 48 ft \$ 78.52 Ft 2-3 weeks

7075t6 sheet 0.375" x 6" x 12 ft \$ 25.68 Ft 2-3 weeks

7075t6 sheet 1" x 0.250" x 12 ft (2 pcs 6ft) \$ 9.92 Ft 2-3 weeks

7075t6 sheet 2" x 0.750" x 12 ft \$ 18.47 Ft 2-3 weeks

2-3 weeks \$ 182.19 Ft 7075t6 sheet 4.5" x 5" x 8 ft cut in section 4 ft 50.125" Long

7075t6 sheet 1" x 2.5" x 12 ft \$ 30.42 Ft 2-3 weeks C

7075t6 sheet 1.250" x 2" x 12 ft \$ 20.12 Ft 2-3 weeks

7075t6 sheet 0.375" x 5" x 12 ft \$ 18.10 Ft 2-3 weeks

303 bar 1" x 3" x 12 ft \$ 107.48 FT 2 weeks

-304 bar 0.750" x 2.5" x 12 ft \$ 24.62 FT 8-9 days

-304 bar 0.500" x 2.5" 12 ft \$ 19.93 FT 8-9 days

Round bar bronze 2.375" x 1 ft (63000 spec's) Regret

Thanks

Marc Desbiens Inside sales representative Castle Metals, Montreal, QC Direct line 514-795-8176 1-800-806-6660 ext 52226 Fax # 1-855-892-6370

Customized Supply Chain Solutions for Your Metal Needs

DATE:	1 6 1.) <u>L L</u>	2010	_			•					
MATERIAL CERT REC'D:	Yi	5			THICKNESS ORDERED: (237)							
QUANTITY RECEIVED:	12	3			THICKNESS RECEIVED: 0.325							
QUANTITY INSPECTED:	12	1			SHEET SIZE ORDERED: SHEET SIZE RECEIVED:							
QUANTITY REJECTED:	OX	/										
	N	CR	T									
DESCRIPTION		heck /N)			COMMEN	NTS						
SURFACE DAMAGE	Y	(N										
CORRECT FINISH	(Y)	N										
CORROSION	Y	N										
CORRECT GRAIN DIRECTION	Y	N	1		4							
ORRECT MATERIAL PER M-DRAWING	Y	-	Am.	5-20-	-A-2501	12						
CORRECT THICKNESS	Y	N	1									
PHOTO REQUIRED	Y	(N)										
CORRECT REF # TO LINK CERT PRECT MATERIAL IDENTFICATION	8	N	test	# 247	15881							
CORRECT M# ON THE MATERIAL	+	N										
DOES THIS MATERIAL REQUIRE	(N										
ENGINEERING SIGN OFF	Y											
DOES THIS REQUIRE AN	<u> </u>	U										
EXTRUSION REPORT	Υ						~					
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CUT SAMPLE PIECE	- OF F	MA1 RECC	ERIAL / ORD RE:	AND PREFO SULTS BELO)RM A HARDNE DW	SS CHECK.						
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E OF TEST SAMPLE												
RDNESS / DUROMETER READII	VG											
	te	sters	located in	the Quality O	ffice							

INSPECTION

DATE:

ENGINEERING SIGNOFF (if required)

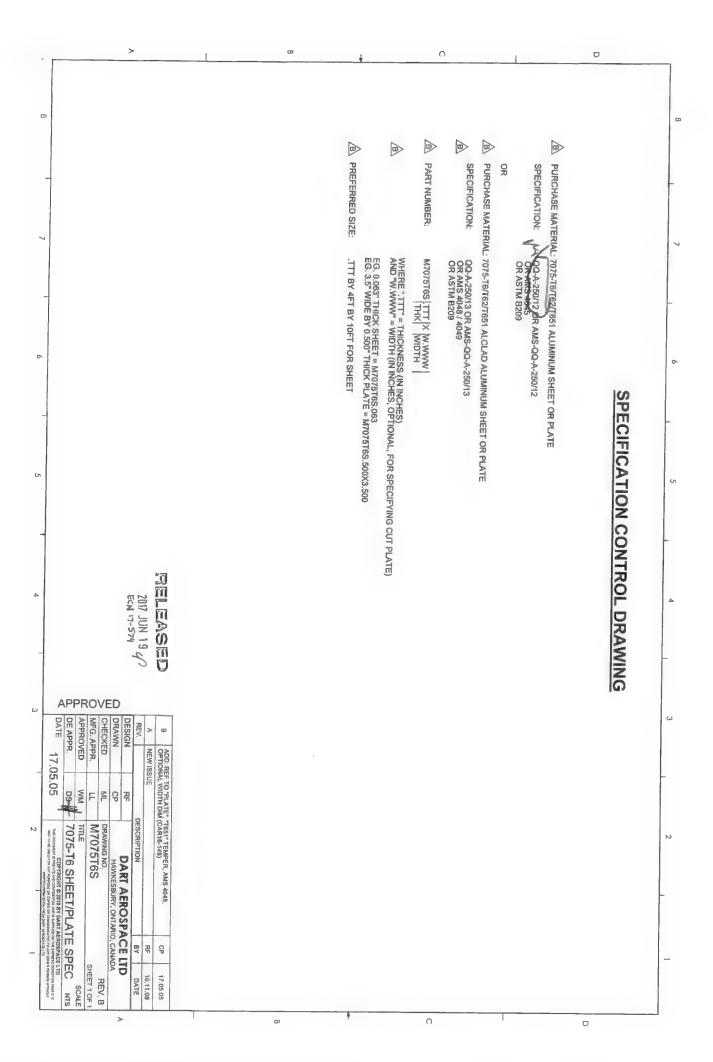
SIGNED OFF BY:

DATE:

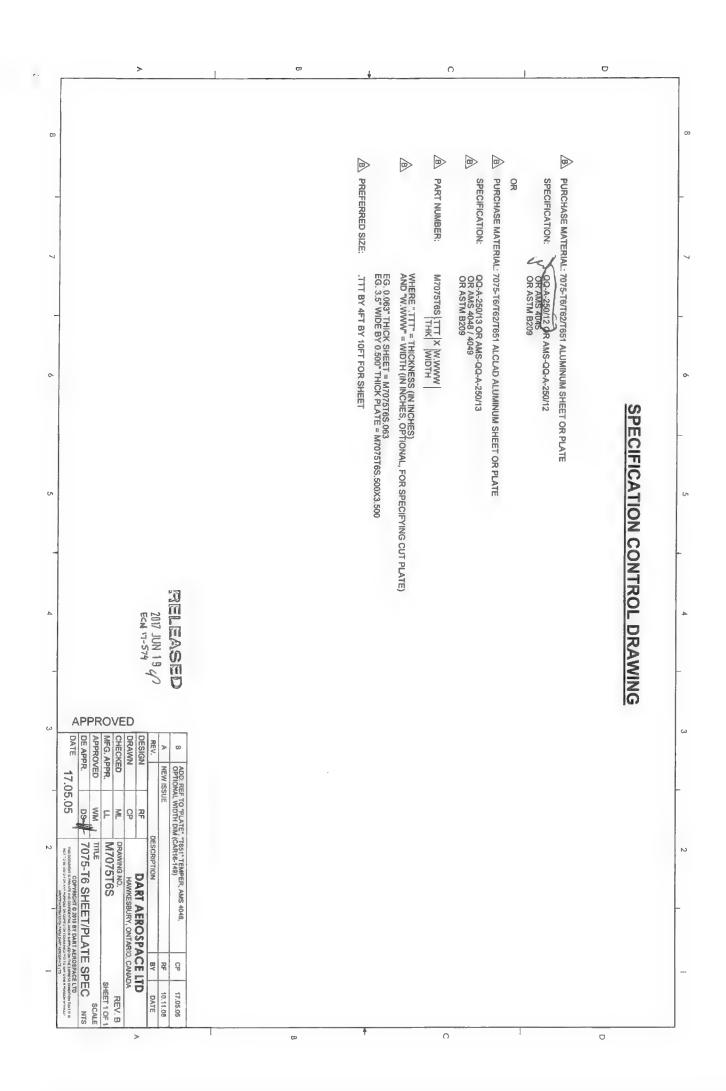
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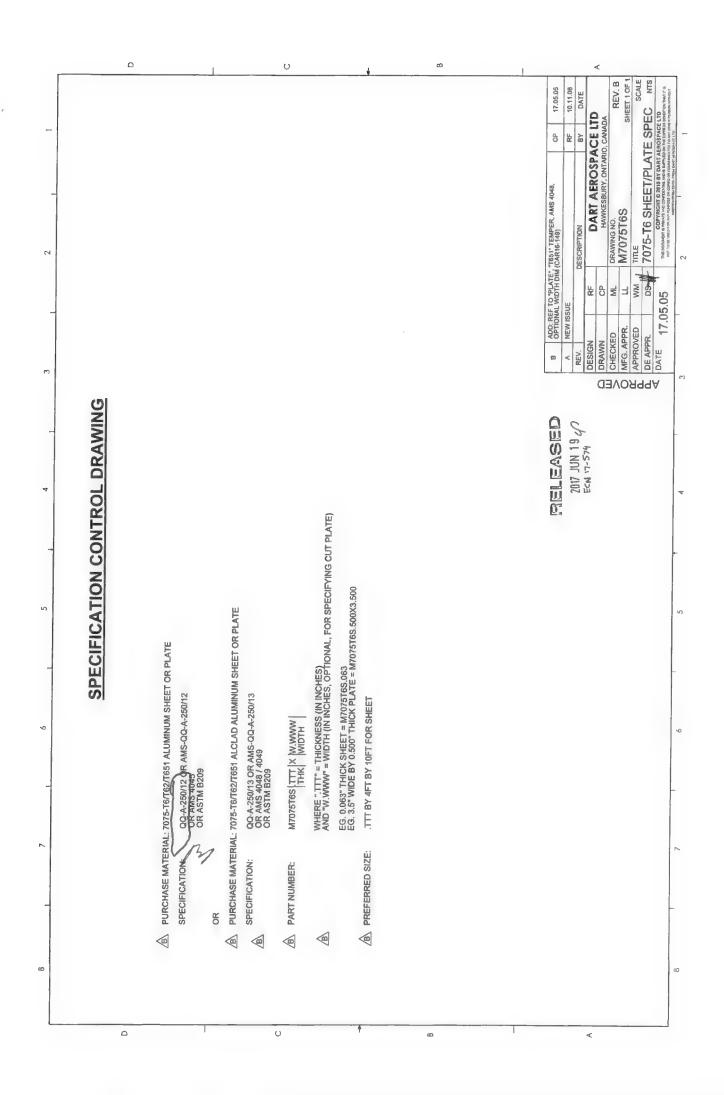


	CD.	222	nik —	_				·		
MATERIAL CERT REC'D:	y.e	5			THICK	(NESS ORD	ERED: 1.4	223		
QUANTITY RECEIVED:	17	1		THICKNESS ORDERED: 1,250						
QUANTITY INSPECTED:			THICKNESS RECEIVED: 1.250 SHEET SIZE ORDERED: VIA							
QUANTITY REJECTED:				SIZE RECE						
	N	CR								
DESCRIPTION		neck /N)				COMMEN	TS			
SURFACE DAMAGE	Y	(N)								
CORRECT FINISH	Y	N								
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CORRECT GRAIN DIRECTION	8	N	1100	AA A		0/0				
CORRECT THICKNESS	V V	N	71115	QG-14	-2	20/12				
PHOTO REQUIRED	Y	(N)								
CORRECT REF # TO LINK CERT	(Y)	N	Hast	# 94	289	34				
DRRECT MATERIAL IDENTFICATION	_	N		**	-					
CORRECT M# ON THE MATERIAL	(Y)	N								
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)								
DOES THIS REQUIRE AN	<u> </u>									
EXTRUSION REPORT	Y	(N)								
CUT SAMPLE PIECI	E OF	MAT	ERIAL A	ND PREFO	OW/	A HARDNE	SS CHECK.			
			HRC	HRB	T	DUR A	DUR D	WEBSTER		
PE OF MATERIAL								VVLBOTEK		
ZE OF TEST SAMPLE										
RDNESS / DUROMETER READII										
	<u>te:</u>	sters	located in	the Quality O	ffice					
						ENGINEER	ING SIGNOF	F (if required)		
18 INSPECTION										
INSPECTION INSPECTED BY: DATE: DATE: FEB 2				SI		OFF BY:		r (irrequired)		

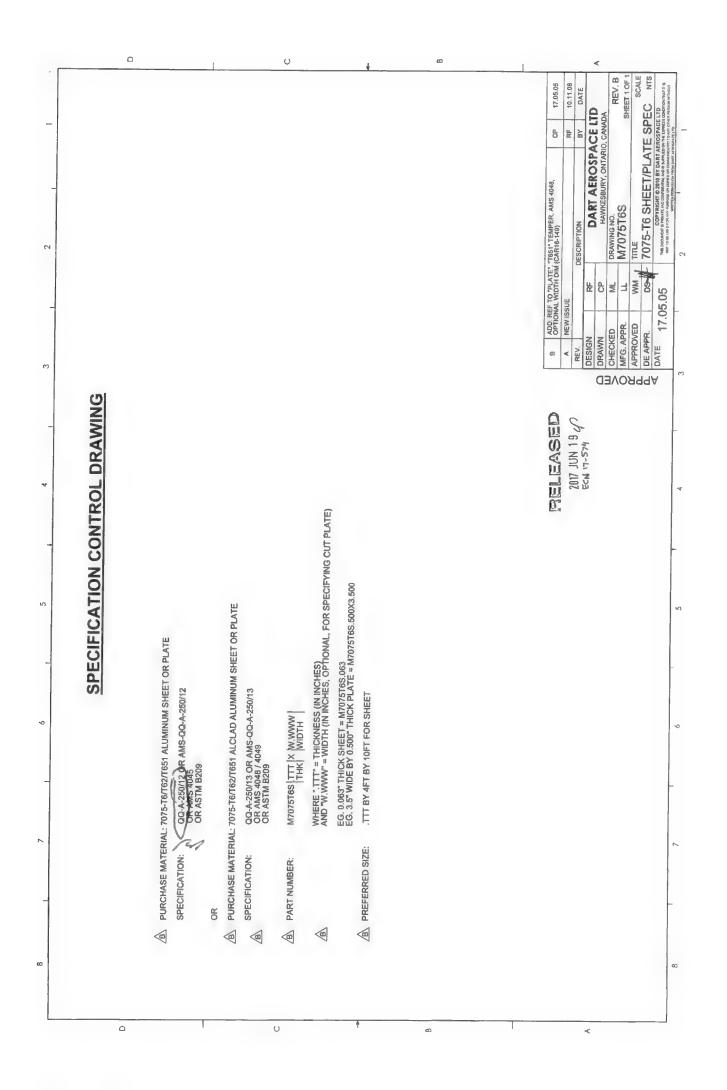


MATERIAL: M70	7757 FEB	652.00 22.2018	CCXQ730	PO / BATCI	н NO.: <u>(СТЗ</u> З	929/5044
MATERIAL CERT REC'D: QUANTITY RECEIVED: QUANTITY INSPECTED: QUANTITY REJECTED:	Yes 121 121		THIC SHE	CKNESS ORDE CKNESS RECE ET SIZE ORDE ET SIZE RECE	RED: N	1
DESCRIPTION	NCF (Chec	ck		COMMEN	TS	
SURFACE DAMAGE		N)				
CORRECT FINISH		N				
CORROSION		(I)				
CORRECT GRAIN DIRECTION	1 100	N	4			
CORRECT MATERIAL PER M-DRAWING	_	NCC	-H-250/	12		
CORRECT THICKNESS		N				
PHOTO REQUIRED		N)				
CORRECT REF # TO LINK CERT			# 847.50	2669		
CORRECT MATERIAL IDENTFICATION		N '		•		
CORRECT M# ON THE MATERIAL	(V)	N				
DOES THIS MATERIAL REQUIRE	1 4					
ENGINEERING SIGN OFF	Y	0				
DOES THIS REQUIRE AN EXTRUSION REPORT	YA	(F)				
LATROSION REPORT	116	<u> </u>				
CUT SAMPLE PIEC	E OF M	ATERIAL	AND PREFOR	M A HARDNE	SS CHECK	
			ESULTS BELOV		OU OF ILOR.	
		HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					DOIND	AACDOILK
SIZE OF TEST SAMPLE						
HARDNESS / DUROMETER READI	NG T	***	1			
		are located	in the Quality Offic			

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: 11	SIGNED OFF BY:
DATE: 9-89 FEB 2 2 2019	DATE:



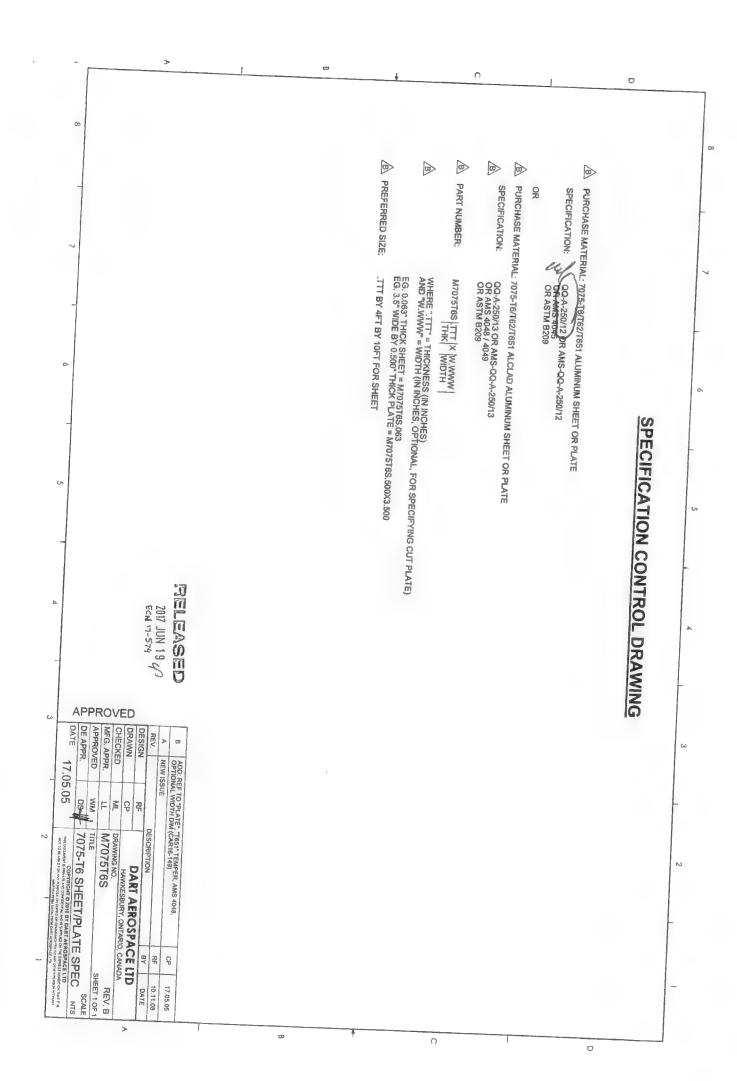
MATERIAL CERT REC'D:	Yε	5		THICKNESS ORDERED: 0.375							
QUANTITY RECEIVED:	12	1		TH	CKNESS RECE	IVED:	375				
QUANTITY INSPECTED:	17	1		_	EET SIZE ORDE		110				
QUANTITY REJECTED:	,			ET SIZE RECE		112					
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DECORPTION	1	CR									
DESCRIPTION	'	neck /N)		COMMENTS							
SURFACE DAMAGE	Y	N									
CORRECT FINISH	(Y	N									
CORROSION	Y	(N)									
CORRECT GRAIN DIRECTION	N		4								
ORRECT MATERIAL PER M-DRAWING	(Y)	N	QQ-	A-290/	17-						
CORRECT THICKNESS	(1)	N									
PHOTO REQUIRED	Y (N)										
CORRECT REF # TO LINK CERT				# 2451	5881						
RRECT MATERIAL IDENTFICATION CORRECT M# ON THE MATERIAL	(Y)	N									
DOES THIS MATERIAL REQUIRE	(Y)	N									
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DOES THIS REQUIRE AN		4									
EXTRUSION REPORT	Y	N)									
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18 INSPECTION			ENGINEERING SIGNOFF (if required								
DAS							SIGNED OFF BY:				
				SIGN	IED OFF BY:						



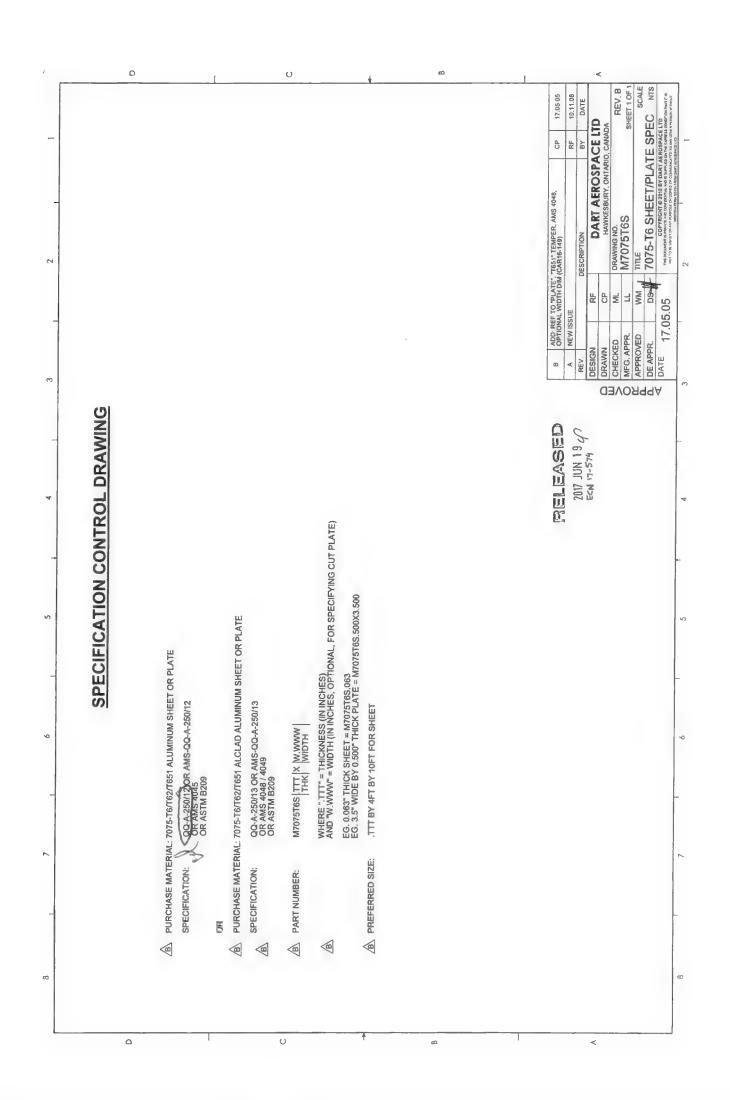
MATERIAL CERT REC'D:	126	2		THICKNESS ORDERED: 0,250					
QUANTITY RECEIVED:	36	1							
QUANTITY INSPECTED:	36	T		SHEET SIZE ORDERED: 0.250					
QUANTITY REJECTED:	_		SIZE RECE		14				
DESCRIPTION		CR neck				COMMEN	TS		
DEGGINI HON		/N)				COMMEN	13		
SURFACE DAMAGE	Y	N							
CORRECT FINISH	(Y)								
CORROSION	Y	M							
CORRECT GRAIN DIRECTION	(4)	N							
ORRECT MATERIAL PER M-DRAWING	(V)	N	COC.	A-250	1/12				
CORRECT THICKNESS	(V)	N							
PHOTO REQUIRED	Y	N	1			- 4			
CORRECT REF # TO LINK CERT	(8)	N	Hist	F 24	(25)	1484			
PRECT MATERIAL IDENTFICATION		N							
CORRECT M# ON THE MATERIAL	(Y)	N	-						
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	R							
DOES THIS REQUIRE AN	-	T.							
EXTRUSION REPORT	Y	(N)							
CUT SAMPLE PIECI				AND PREF		A HARDNE	SS CHECK.		
			HRC	HRB		DUR A	DUR D	WEBSTER	
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ZE OF TEST SAMPLE									
	NG								
RDNESS / DUROMETER READI					Office				
SIZE OF TEST SAMPLE	NG								

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

DATE:

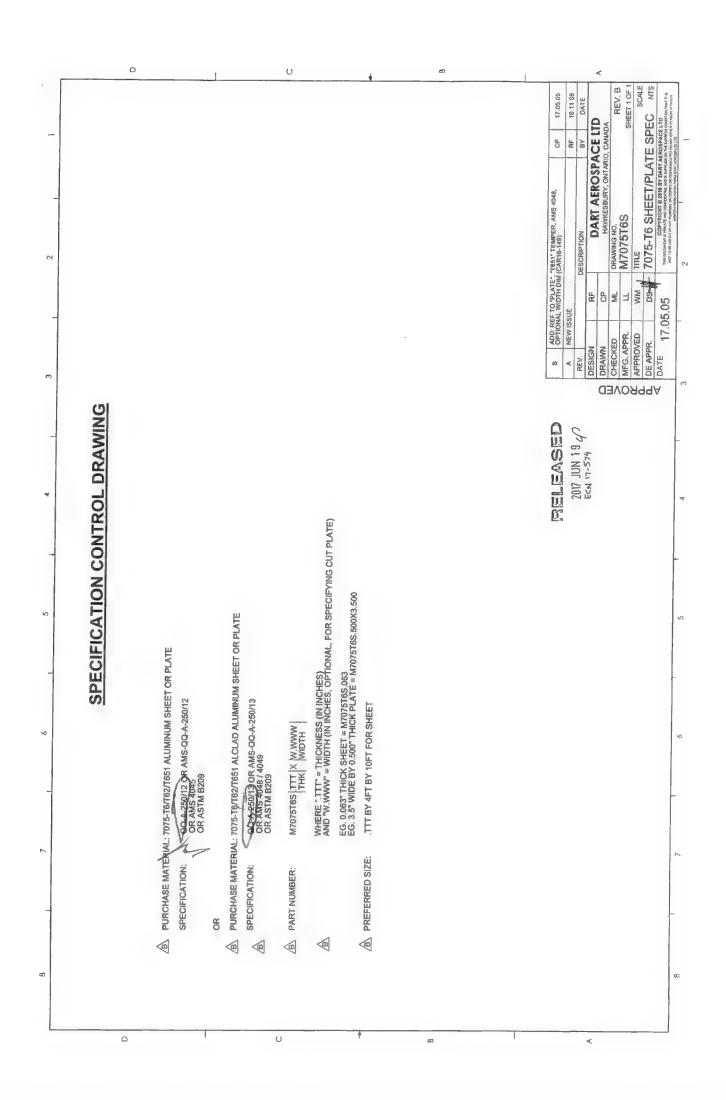


MATERIAL CERT REC'D:	125			THICKNESS ORDERED: 1-250							
QUANTITY RECEIVED:	12						EIVED: 1-2				
QUANTITY INSPECTED:	121										
QUANTITY REJECTED:			SHEET SIZE ORDERED: NA SHEET SIZE RECEIVED: NA								
DECORIDATION		CR	T								
DESCRIPTION	,	heck /N)				COMMEN	ITS				
SURFACE DAMAGE	Y	(N) (N)									
CORRECT FINISH	N	N	-								
CORROSION	14	(N)	-								
CORRECT GRAIN DIRECTION	(Y)	N									
ORRECT MATERIAL PER M-DRAWING	R	N	00	1-1	50/1	7					
CORRECT THICKNESS	(Ý)	N	W.C.	7 0	14.1	han					
PHOTO REQUIRED	Y	(N)		4							
CORRECT REF # TO LINK CERT	(4)	N	HEOD	## 9	408	9301					
RRECT MATERIAL IDENTFICATION	0	N		7							
CORRECT M# ON THE MATERIAL	8	N									
DOES THIS MATERIAL REQUIRE		~									
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EXTRUSION REPORT	Υ										
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18 INSPECTION						ENGINEER	ING SIGNOF	F (if required)			
DAS					0101:						
INSPECTION INSPECTED BY: 11 DATE: 9-89 PEB 2 2					SIGNE	D OFF BY:					



MATERIAL: M707 DATE: FE	B 2	2 20	118	_		PO / BATCI		7	
MATERIAL CERT REC'D:	10	5			THIC	KNESS ORDI	ERED: / -(Jav?	
QUANTITY RECEIVED:	. 1	7		_					
	15	_			IVED:	11.0			
QUANTITY INSPECTED:	_	SHEE	T SIZE ORDE	ERED:	1/1				
QUANTITY REJECTED:			_	SHEE	T SIZE RECE	IVED:	14		
									
DESCRIPTION	(Cl	CR neck			COMMENTS				
		N)							
SURFACE DAMAGE		(N)							
CORRECT FINISH	(0)	N							
CORROSION	Υ	(1)							
CORRECT GRAIN DIRECTION	(2)	N	-						
CORRECT MATERIAL PER M-DRAWING	(8)	N	QQ-	A-250	2/1	2			
CORRECT THICKNESS	(3)	N			(
PHOTO REQUIRED	Y	(1)	-	1					
CORRECT REF # TO LINK CERT	Y	N	14-ea	1 # 99	600	59			
CORRECT MATERIAL IDENTFICATION		N	ļ						
CORRECT M# ON THE MATERIAL	(Y)	N							
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Υ	M							
DOES THIS REQUIRE AN EXTRUSION REPORT	Υ	N							
CUT SAMPLE PIECE	OF	MA	TERIAL	AND DDE	OPM	A HADDNE	SS CHECK		
OUT OANN EET TEOL		REC	ORD RE	SULTS BE		A HARDINE			
VDE 05 111 TED.11			HRC	HRB		DUR A	DUR D	WEBSTER	
YPE OF MATERIAL									
SIZE OF TEST SAMPLE									
IARDNESS / DUROMETER READIN									
	te	sters	located in	the Quality	Office				

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY:	SIGNED OFF BY:
DATE: 9-89FEB 2 2 2018	DATE:







CERTIFIED TEST REPORT Constellium Rolled Products Ravenswood LLC

						_		Raven	iswood. I	LC	
Α	M CAST	LE & CO),			1	S	A M CAS	TLE	i	
PA	RAMÕUN 723	ANGE AV	E.				10	1420 KEN OAK BROG 60523 US	SINGTON OK IL	ROAD, SUITE	
STLE	11	0586095	4075		INCL	JSION	Seria	1:20171025-0	110586095	Pg tof2	
MER F	PURCHAS	E ORDER	NO. & ITEM	И	Conste 219662	ellium ORDER		metal shi	pped under ti	ts, hereby certifles his order has been	
CLA	T65	1 / 1.00	UGE 0000 in 40 mm	48.500 1,232	000 in	LENGTH 144.50000 3,670 mm	in	inspected and found in conformance with the requirements of the applicable specifications indicated herein. Any warranty is limited to the shown on Constellium Rolled Products' stand			
RDERE LATE. VISH	SAWED							General Ten	ms and Cond on file, subje	litions of Sales. Te ec: to examination ets Ravenswood, L	
MER S 45K	PECIFICA	TION						RAVE	P.O. BOX		
UMBE	R		B/L NUME 89188	BER		SHIPPED /2017		1	ten S	al .	
PPED 0 LB		NO. OF 000003	PIECES	GOVT.	CONTR	ACT NO.					
						E FOLLOWIN				aboratory Manager	
13 RE\ ⊉101 R	/ AK 2012 EV 3 200	CLASS A 6 CLASS A	% SONIC N 100% SONI 100% SONI 100% SONIC MINU	IC MINUS NIC MINU	S DEAD: US DEAD	ZONE					
tails											
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	Témpera	ture (US)									
			e (KSI)	Y	ield (KS	l)	Elong	ation (%)	Report		
ction	Tests	Min	Max	M	lin	Max	Min	Max		1	
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	_										
Room	Tempera		e (N/MM2)	Yi	ield (N/A	/M2)	Elong	ation (%)	Report	1	
ection	Tests	Min	Max	M	in	Max	Min	Max			
	02	586	567	50)4	509	13.5	13.5			
										\$ C.03"	
50 REV	/ISED: 10	2014									





CERTIFIED TEST REPORT Constellium Rolled Products Ravenswood, LLC

s	A M CASTLE & CO.
H	14001 ORANGE AVE PARAMOUNT CA
P	90723
T	US

S

A M CASTLE 1420 KENSINGTON ROAD, SUITE 220 OAK BROOK IL 60523

CUSTON 438535	MER PUR	CHAS	E ORI	DER N	O. & ITE	M		onstelliu 19662	m ORDE	R NO.	CERTIFICATION "Constellium Rolled Products, hereby certifies the metal shipped under this order has been
ALLOY 7075	CLAD	TE/ T65	WPER	1.00	GE 000 in 2 mm	48.5 1,23	OCO	0 in 1	ENGTH 44.50000 3,670 mm	in	inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellum Roked (Products' standard)
SPEC PL	EM ORDERED PEC PLATE, SAWED IILL FINISH USTOMER SPECIFICATION										General Terms and Conditions of Salos. Test reports are on file, subject to exemination." Constellium Rolled Products Ravenswood, LLC 859 Century Road
CUSTON AMS 404		CIFICA	TION								P.O. BOX 68 RAVENSWOOD, WV 26164 USA
PART NL 752188	JMBER				B/L NUM 89186	BER		DATE SI 10/26/20			Steve Soul
WT. SHIF 2100.000				0003	PIECES	GOVI	. C(ONTRACT	NO.		Steve Good - Laboratory Manager
Chemist	y (Actua	1)						···			
Core		SI 0.06	FE 0.17	CU 1.47	MN 0.02	MG 2.69	0.2		TI 0.04	ZR 0.0	
OTHERS	EACH:	.05 MA	X. 01	HERS	TOTAL	.15 MA	X. #	AL REMA	NDER		
Ali mater	ial conta	ined in	this	lot wa	s cast a:	nd man	ufac	tured in t	he USA		

THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY OR AUTHORIZED QUALITY DELEGATE. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

CHEMISTRY BY OES: ARKSPARK

CHEMISTRIES REPORTED IN PERCENTAGE BY WEIGHT

WHEN FRACTURE TOUGHNESS TEST REQUIRED, TESTED PER ASTM E3:99

WHEN TENSILE TEST REQUIRED, TESTED PER ASTM E3: B557

DUNS Number: 090570143; CAGE Code: 1YWL9

Mercury is not a normal contaminant in aluminum alloys and neither mercury nor any of its compounds were utilized in the manufacture of our product.

manufacture of our product.
"END OF CERTIFICATION"

P-860-155D REVISED: 10 2014



THUMBLY Materials Testing Laboratory

Constellium Rolled Products Ravenswood, LLC

A M CASTLE & CO. S н 14001 ORANGE AVE. 1 PARAMOUNT CA р 90723 0

5 Ó E. D Ŧ 0

A M CASTLE

1420 KENSINGTON ROAD, SUITE 220 OAK BROOK IL 60523 US

A M CASTLE 110606831 4075 INCLUSION Serial:20180104-0110606831 Pg 1of3 CUSTOMER PURCHASE ORDER NO. & ITEM Constellium ORDER NO. CERTIFICATION 448875 228501 "Constellium Rolled Products, hereby cartifies that ne? metal shipped under this order has been ALLOY 7075 inspected and found in conformance with the CLAD TEMPER GAUGE WIDTH LENGTH requirements of the applicable specifications as T651 (1.25000 in 48.50000 in 144.50000 in indicated herein. Any warranty is limited to that 3.670 mm 31.75 mm 1,232 mm shown an Constellium Rolled Products' standard ITEM ORDERED Gonoral Terms and Conditions of Sales, Test SPEC PLATE, SAWED reports are on file, subject to examination." MILL FINISH Constellium Rolled Products Ravenswood, LLC 859 Century Road CUSTOMER SPECIFICATION P.O. BOX 68 RAVENSWOOD, WV 26164 USA AMS 4045K PART NUMBER **B/L NUMBER** DATE SHIPPED 752114 92452 01/04/2018 WT. SHIPPED NO. OF PIECES GOVT, CONTRACT NO. 5340.000 LB 000006 Steve Good - Laboratory Manager

ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS:

ASTM 8594 REV 13 2013 100% SONIC W/ 0.125"DEADZONE Class A AMS QQ-A-250/12A AMS STD-2154A 2012 TYPE1 CLASS A 100% SONIC MINUS DEADZONE

ASTM B209-14 BSS-7055B 2013 CLASS A 100% SONIC TESTED MINUS DEADZONE CST1006 REV E 2011 CLASS A 100% SONIC MINUS DEADZONE DPS 4.713 REV AK 2012 CLASS A 100% SONIC MINUS DEADZONE GAMPS 9101 REV B 2006 CLASS A 100% SONIC MINUS DEADZONE PS 21211P 2010 CLASS A 100% SONIC MINUS DEADZONE

Load Details

Package	Net Lbs	Kg	Lot	Piece	Serial	Parent Lot
1001681411	890.000	403.697	9408934	01		
1001681411	890.000	403.697	9408934	02		
1001681411	890.000	403.697	9408934	03		
1001681412	890.000	403.697	9408935	01		
1001581412	890.000	403.697	9408935	02		
1001687412	890.000	403.697	9408935	03		
: 9408934	-1					

Tensile - Room Temperature (US)

		Ultimate (KSI)		Yield (KSI)		Elongation	(%)	Report			
Direction	Tests	Min	Max	Min	Max	Min	Max				
LT	02	79.5	79.9	70.1	70.3	12.5	13.0				

P-860-155D REVISED: 10 2014

Section 1		1		C	T'	$\boldsymbol{\circ}$	8	0.1		8.1	3
		UΖ	8.6		а.		ũ.	ВI	H.	LΙ	 ж.
4- Apr	_	_		-	-	~				9 1	



Constellium Rolled Products Ravenswood, LLC

4					,			Ravens	wood, LL	C		
S	A M C								s A	M CASTL	E	
I P	14001 PARAM 90723 US			Ε.					0 0	AK BROOK 0523	NGTON RO	DAD, SUITE 220
A M CAST	LE	110606	831	4075		INCL	USION		Serial:2	0180104-011	0606831	Pg Zof3
CUSTOME 448875	R PURCI	HASE OF	RDER	NO. & ITE		Const 22850		ORDER		enstellium Rol	CERTIFICAT	ION hereby cortifies the order has been
ALLOY 7075	CLAD	TEMPEI T651	1.25	JGE 000 in 5 mm	WIDTH 48.5000 1,232 m		144	NGTH .50000 i 70 mm	n re	spected and quirements of licated herein	found in con the applicab . Any warran	formance with the le specifications as ty is limited to that Products' standard
SPEC PLA MILL FINIS	TE, SAWI									reports are or onstellium Ro	file, subject	ons of Sales. Test to examination." Revensewood, LLC
CUSTOME AMS 4045	<	FICATIO	N								P.O. BOX 6	8
PART NUN 752114	MBER	B/L NUM 92452	BER		E SHIP 4/2018	PED		Ste	- In	1		
WT, SHIPP 5340.000 L	77. SHIPPED NO. OF PIECES 000006					ONTR	ACT N	0.				(
										Steve	Good - Lab	oratory Manager
Tensile - R	loom Tem			le (N/MM2	2) Yie	eld (N	/MM2)		Elongal	ion (%)	Report	
Direct	ion Te	sis I	Min	Max	Mi	n	Ma	X	Min	Max		
LT	02		548	551	48	3	48:	5	12.5	13.0	i	
Chemistry	(Actual) Si 0.0	FE 7 0.15	CU 1.40	MN 0.04	MG CR 2.59 0.2		ZN 5.43	TI 0.04	ZR 0.00			
OTHERS-	ACH: .05	MAX. O	THER	S TOTAL:	.15 MAX.	AL RE	MAINE	DER			,	
All materia	l containe	ed in this	lot w	as cast ar	nd manufa	ctured	in the	USA				
Lot: 940) i	
Tensile - R	oom tem			e (KSI)	Yie	łd (KS	SI)		Elongation	on (%)	Report	
Directi	on Tes		iin	Max	Mir		Ma	K	Min	Max	ridport	
LT	02		0.7	80.7	71.		71.		12.5	13.0		



P-860-155D REVISED: 10 2014



Constellium Rolled Products Rayenswood LLC

,												Ravenswood, LLC	
S	А М	CAS	TLE	& CO						ſ	S	A M CASTLE	
H	1400	1 05	RANG	E AV	Ē.						0	1420 KENSINGTON ROAD, SUITE	220
7 0	9072 US	MOU 3	JNT	A							D T	OAK BROOK IL 60523 US	:20
A M CAST	LE	1	1060	6831	4075			INCLU	SIOI	N	Seri	rial:20180104-0110606831 Pg 3of3	_
CUSTOMI 448875	ER PUI	RCHA	SE O	RDER	NO. & ITE	M		Constell 228501	lium	ORDER	R NO.	"Constellium Rolled Products, hereby certifies metal shipped under this order has been	
ALLOY 7075	CLAD		MPE 551	1.25	JGE 5000 in '5 mm	WID 48.5 1,23	5000		14	NGTH 4.50000 370 mm	in	inspected and found in conformance with the requirements of the applicable specifications indicated herein. Any warranty is limited to the shown on Constellium Rolled Products' stand	as hat
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH												General Terms and Conditions of Sales, Teresports are on file, subject to exemination, Constellium Rolled Products Revensivood, LI	32
CUSTOME AMS 4045		CIFIC	ATIO	N								859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA	
PART NUI 752114	MBER				B/L NUM 92452	BER		DATE :				Stew Sand	
WT. SHIPE 5340.000 L				O. OF 00006	PIECES	GOVI	r. ce	ONTRA	CTA	NO.		Same Santi Laboratoria	
Tanaita 5	- T			4011						= :		Steve Good - Laboratory Manager	
Tensile - R	coom i	empe			le (N/MM2	2)	Yie	eld (N/M	M2')	Flor	ongation (%) Report	
Direc	tion	Tests		Min	Max		Mir	-		ax	Min		
LT		02		556	556		490		49		12.5		
Chemistry	(Actua	all											
		SI	FE	CU	MN	MG	CR	ZN.	1	T!	ZR		
Core		0.07	0.15	1.40	0.04	2.59	0.2			0.04	0.00		
OTHERS-	EACH:	.05 M	AX. O	THER	S TOTAL:	.15 MA	XX. A	AL REM	AIN	DER			
All materia			in this	lot wa	as cast ar	nd man	ufac	ctured in	n th	e USA			
QUALITY AMC CA-15		_											
THIC TE	OT OCH	OPT C	11000	A407 0									
OR AUTH	ORIZED	QUAI	LIIY L	ELEGA	RTIFICATE	MAY E	ING BE P	OF FALS	SE, F D AS	FICTITIOUS A FELC	JS, OR JNY U	E WRITTEN APPROVAL OF THE LABORATORY R FRAUDULENT STATEMENTS OR ENTRIES ON UNDER FEDERAL LAW.	
					CHEM	HISTRIES	S RE	PORTED	IN I	RKSPARI	AGE E	BY WEIGHT	
			1	MHEN I	FRACTURE	TOUGH	HNES	SS TEST	REG	QUIRED.	TESTE	ED PER ASTM E399 TM E8: 8557	
Mannes					DUNS	Numbe	DF:	090570	1149	- CAGE	Code	1 VMII O	
mercury !!	o nut a	viorma	u cont	aminan	t in alumin	menuta	ctur	nd neith e of cur ERTIFIC/	pro	duct.	or any	y of its compounds were utilized in the	

SHIP TO:

A M CASTLE & CO 14001 ORANGE AVE P.O. BOX 1402 PARAMOUNT, CA 90723

SOLD TO:

AM CASTLE & CO- SOLD TO 1420 KENSINGTON RD SUITE 220 OAK BROOK, IL 60523

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215

Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number 4493592

CUSTOMER PO NUMBER	R: W	ORK PACKA		750023	PART	NUMBER:		IP RUN/LOAD:	GOVTCO	NTRACT NUMBER:	
1248439-1		SHIP DATE:				BARE	TEMPER:	PRODUCT DESCRIPT		N;	
WEIGHT SHIPPEO:	18 PCS		20712			GAUGE: 0.2500 !	N 6 3500 MM;	10IAMETERANI 48.500 IN		LENGTH: 144.500 IN	(3670.3 MM)

MHU 2188858: LOT 24552484: 18 pieces;

AMS 4045/RevL

CMMP 025/RevV

Cast 571

Certified Specifications AMS-00-A-250/12/RevA

Test Results

ASTM B 209/Rev14

Drop 12 Ingot 2

Melted in USA

(ASTM E8/6557) (EN 2002-1)

Teet Code: 1512

Lot: 245524B4

Tensile:

T651

Dir / # Tests LT / 2 (Min:Max) Ultimate KSI (MPA) 86.1:86.1

Yield KSI (MPA) 76.6:76.7

Elongation % 11.7:12.6

(594:594) (528:529)

(ASTM E1251) Chemistry:

SI FE CU MN Actual(wt%) 0.08 0.17 1.4 0.04 MG CR 2.6 0.20

ZN TI 5.7 0.03

ZR 0.01 0.01

OTHER TOT 0.03

ALLOY LIMITS

FE CU MIN MG CR ZN TI ZR OTHER MAX 7075 MIN(wt%) 0.00 0.00 1.2 0.00 2.1 0.18 5.1 0.00 0.00 0.00 EACH 0.05 MAX(wt%) 0.40 0.50 2.0 0.30 2.9 0.28 6.1 0.20 0.05 0.05 TOT 0.15 Aluminum Remainder

> ORDER COMMENTS AMC CA-15409 R 3





Trentwood Works - Spokane, WA 99215 Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number 4493592

CERTIFICATION

Kaiser Ahminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 cardilled, and hareby certifies that all material shipped under this order:

has been inspected, tested, and feying to be in conformance with the requirements of the specifications inflicated herein.

All test equirement and measuring devices are calibrated and certified in accordance applicable specifications. Fire material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture.

Was methed in the United States of America or a qualifying country per DFARS 225.872-1(a), was menutactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content.

As seen thermally processed in compliance with AMS 2772, where applicable.

Is in an entirely free, within the limits of describin of ASTA 81215 (c topms).

Is in compliance with RoMS 2, European Union Directive 2011/85/2U.

Is in compliance with RoMS 2, European Union Directive 2011/85/2U.

Is in compliance with European Chemical Agency, ECHA, REACH regulations, (EC) No 1907/2008, and Kalser regulation these regulations for updates.

Is tree of Conflict Niterals, as defined in Section 19.2 of the Dodd-Frank Act.

Is tree of Conflict Niterals, as defined in Section 19.2 of the Dodd-Frank Act.

The reporting requirements of En10704, Type 3.1.

Any wateranty is fimited to that shown on Kalser Aluminum's standard general terms and conditions of soil. Test reports are on tile, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kalser Aluminum laboratory. The recording of false, licitious or fraudulent statements or entries on the certificate may be purished as a felony under federal law.

JAMES HEMENWAY, TECHNICAL PROCESS MANAGER

Page 2 of 2

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SHIP TO:

A M CASTLE & CO 14001 ORANGE AVE P.O. BOX 1402 PARAMOUNT, CA 90723

SOLD TO:

MIN(wt%)

MAX(wt%)

0.00

0.40

0.00

0.50

1.2

2.0

0.00

0.30

AM CASTLE & CO- SOLD TO 1420 KENSINGTON RD SUITE 220 OAK BROOK, IL 60523 KAISER

Trentwood Works - Spokane, WA 99215

Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number | 4481839

CUSTOMER PO NUMBER: WO 438454-1		WORK PACKAGE: CUSTOMER PART 750067		NUMBER:	SHIP RUN/LOAD: 104070/8	GOVT CONTRACT NUMBER	:
KAISER ORDER NO: 1244225-1		SHIP DATE: 14-OCT-201		BARE TEST	PRODUCT D	ESCRIPTION:	
WEIGHT SHIPPED: 3198 LB	12 PCS ES			0.3750 IN	DIAMETERWII 48.500 IN (12	DTH: CENGTH: 144.500 IN 31.9 MM)	(3670.3 MM)

MHU 2157346: LOT 24515881: 12 pieces;

Eertified Specifications AMS 4045/RevL AMS-QQ-A-250/12/RevA ASTM 8 209/Rev14 CMMP 025/RevV Test Code: 1519 **Test Results** LOT: 245158B1 Cast 534 Drop 25 Ingot 5 Melted in USA (ASTM E8/B557) (EN 2002-1) Dir / # Tests Tensile: Temper Ultimate KSI (MPA) Yield KS! (MPA) Elongation % T651 LT / 3 (Min:Max) 85.5:85.8 75.8:76.0 13.3:13.5 (590:592) (523:524) (ASTM E1251) Chemistry: SI FE CU MN MG CR 7N TI ZR OTHER Actual(wi%) 0.10 0.17 1.5 0.04 2.5 0.19 5.8 0.03 0.01 0.02 TOT 0.03 **ALLOY LIMITS** SI FE CU MN MG ZN 1T ZR OTHER MAX 7075

Aluminum Remainder

0.18

0.28

5.1

6.1

0.00

0.20

0.00

0.05

0.00

0.05

EACH

TOT

0.05

0.15

2.1

2.9

ORDER_COMMENTS
AMC CA-15409 R 3





CERTIFIED TEST REPORT

Serial Number 4481839

Trentwood Works - Spokane, WA 99215 Phone: (800) 367-2586

CERTIFICATION

CERTIFICATION

Kaser Aluminum, Trentwood Works, is 150 9001, ASB100, and ISC 14001 certilled, and hereby certilies that all material shipped under this order:

has been inspected, tested, and found to be in confermance with the requirements of the specifications indicated herein.

All test equirament and measuring downless are celibrated and certified in accordance applicable specifications. For material hitchnesses outside specification hims, mechanical properties are as shown herein and chemical composition media specification requirements. Reported elongation values have been measured as elongation at fracture, was metical in the United States of America or a qualifying country per DFARS 225.872-1(a), was manufactured in the United States of America, and meets the requirements of OFARS 252.225 for has been thermally processed in compliance citin AMS 2772, where applicable.

Is the compliance with RehS 2, European Union Directive 2011/65/20.

Is in compliance with RehS 2, European Union Directive 2011/65/20.

Is in compliance with European Chemical Agency, ECHA, REACH regulations, (EC) No 1907/2006, and faiser regulatry monitors these regulations for undates.

It is free of weld retain:

meets the reporting requirements of EN10204, Type 3.1.

Any warrasty is limited to that shown on Asizer Aluminum's standard general terms and conditions of sale. Test reports are on tile, subject to examination. Test reports shall not be reproduced except in fulf, without the written approval of the Kaiser Aluminum laboratory. The recording of false, lightings or fraugulent statements or entries on the cartilicate may be punished as a felony uncer federal faw.

JAMES HEMENWAY, TECHNICAL PROCESS MANAGER

Jemennay

Page 2 of 2

SHIP TO:

A M CASTLE & CO 14001 ORANGE AVE P.O. BOX 1402 PARAMOUNT, CA 90723

SOLD TO:

AM CASTLE & CO- SOLD TO 1420 KENSINGTON RD SUITE 220 OAK BROOK, IL 60523

KAISE ALUMINUM

Trentwood Works - Spokane, WA 99215 Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number 4495731

CUSTOMER PO NUMBER	t: [wo	RK PACKA		USTOMER PART	NUMBER:	SH	IP RUNLOAD:	GOV'T CO	NTRACT NUMBER	R:
449547-1			7	750157	6	10	4171/7			
KAISER ORDER NO:		SHIP DAT	TE:	ALLOY:	CLAD:	TEMPERO	PRODUCT D	ESCRIPTIO	IN:	
1249020-1		29-JAN	N-2018	7075	BARE	T651	Sawed Pla	ale	i	
WEIGHT SHIPPED:	QUANTITY:		TRUCK E	B/L #:	GAUGE:	1	DIAMETERMIE	TH:	LENGTH:	
3816 LB	7 PCS ES	т.	207159	92	0.7500 IN	9.0500 MM)	48.500 IN	31.9 MM)	144.500 IN	(3670.3 MM)

MHU 2176485: LOT 247506B9: 7 pieces;

AMS 4045/RevL ASTM B 209/Rev14 BSS 7055/RevB DPS 4.713/RevAK PS 21211/RevP

Certified Specifications AMS-00 A 250/12/RevA

ASTM B 594/Rev 13 CMMP 025/RevV GAMPS 9101/RevB/AmdSCN1

AMS-STD-2154/RevC BAC 5439/RevJ CSTI 006/RevE GSS16100/RevG/Amd1

Test Code: 1512 Lot: 247506B9

Cast 577

Drop 04

Test Results Ingot 1

Melted in USA

(ASTM E8/B557) (EN 2002-1)

Tensile:

Temper T651

Dir / # Tests LT / 2 (Min:Max)

Ultimate KSI (MPA)

84.1:84.3 (580:581) Yield KSI (MPA) 74.8:75.2 (518:519)

Elongation % 13.4:13.5

(ASTM E1251)

Chemistry: SI CU MN FE MG CR ZN TI ZR OTHER Actual(wt%) 0.08 0.17 1.5 0.04 2.5 0.19 5.9 0.02 0.01 0.01 0.04 TOT

ALLOY LIMITS

FΕ ÇŲ MN MG CR ZN TI ZR OTHER MAX 7075 MIN(wt%) 0.00 0.00 1.2 0.00 2.1 0.18 5.1 0.00 0.00 0.00 **EACH** 0.05 MAX(wt%) 0.40 0.50 2.0 2.9 0.28 6.1 0.20 0.05 0.05 TOT 0.15

Aluminum Remainder

ORDER COMMENTS AMC CA-15403 R 8



CERTIFIED TEST REPORT

Serial Number 4495731

Trentwood Works - Spokane, WA 99215 Phone: (800) 367-2586

TEST NOTES

Metal represented by this test report was 100% Type I (immersion) ultrasonically tested from one side with 3mm dead zones top and bottom and meets the Class A and Class B requirements of all specifications referenced on this test report. No surface marking of sonic indications is

CERTIFICATION

Kaiser Aluminum, Transwood Works, is ISO 9001, ASB 100, and ISO 14001 certified, and hareby cartifles that all material shipped under this order:

* has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein.

All test equipment and measuring devices are calibrated and curtified in accordance applicable specifications. For material thicknesses outside specification funity, mechanical proporties are as shown herein and channels composition ments specification requirements. Reported elongation values have been measured as dangation at fracture.

**was material in the United States of America or a qualifying country per DFARS 255.872-1(s), was manufactured in the United States of America, and meets the requirements of OFARS 252.225 for demands contain:

was matted in the United States of America or a qualifying country per DFARS 225.877-1(a), was manufactured in the United States of America, and meets the requirements of OFARS 252.225 for domestic content.

This been thermally processed in compliance with AMS 2772, where applicable.

It is measure from the United States of detection of ASTM 5121314 (a) processed in compliance with Robit 2, European Union Directive 2011/85/EU.

It is in compliance with Robit 2, European Union Directive 2011/85/EU.

It is noombliance with European Chemical Agency, ECHA, REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates.

It is fee of Conflict Minnerals, as defined in Section 15.2 of the Dodd-Frank Act.

The end of the repositing requirements of EN10204, Type 3.1

Any worrestity is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Tost reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, dictitious or transdutent statements or entries on the certificate may be purished as a falony under federal law.

JAMES HEMENWAY, TECHNICAL PROCESS MANAGER



Materials Teeling Laboratory

Constellium Rolled Products Ravenswood, LLC

A M CASTLE & CO. \$ S A M CASTLE G 14001 ORANGE AVE. 1420 KENSINGTON ROAD, SUITE 220 Ł PARAMOUNT CA OAK BROOK IL P D 60523 US T O 0 A M CASTLE 110606831 4075 INCLUSION Serial: 20180104-0110606831 Pg 1of3 CUSTOMER PURCHASE ORDER NO. & ITEM Constellium ORDER NO. CERTIFICATION 448875 "Constellium Rolled Products, hereby certifles that M.t metal shipped under this order has been 7075 inspected and found in conformance with the CLAD TEMPER GAUGE WIDTH LENGTH 1.25000 in requirements of the applicable specifications as T651 48.50000 in 144.50000 in indicated heroin. Any warranty is limited to that 31.75 mm 1,232 mm 3,670 mm shown on Constellium Rolled Products' standard ITEM ORDERED General Terms and Conditions of Sales. Test SPEC PLATE, SAWED reports are on file, subject to examination." MILL FINISH Constellium Rolled Products Ravenswood, LLC 859 Century Road CUSTOMER SPECIFICATION P.O. BOX 68 AMS 4045K RAVENSWOOD, WV 26164 USA PART NUMBER **B/L NUMBER** DATE SHIPPED 752114 92452 01/04/2018 WT. SHIPPED NO. OF PIECES GOVT. CONTRACT NO. 5340.000 LB 000006 Steve Good - Laboratory Manager ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS: ASTM 8594 REV 13 2013 100% SONIC W/ 0.125"DEADZONE Class A AMS 00-A-250/12A

AMS-STD-2154A 2012 TYPE1 CLASS A 100% SONIC MINUS DEADZONE

R1

ASTM B209-14
BSS-70558 2013 CLASS A 100% SONIC TESTED MINUS DEADZONE
CSTI006 REV E 2011 CLASS A 100% SONIC MINUS DEADZONE
DPS 4.713 REV AK 2012 CLASS A 100% SONIC MINUS DEADZONE
GAMPS 9101 REV B 2006 CLASS A 100% SONIC MINUS DEADZONE
PS 21211P 2010 CLASS A 100% SONIC MINUS DEADZONE



Load Details

Package	Net Lbs	Kg	Lot	Piece	Serial	Parent Lot
1001681411	890.000	403.697	9408934	01		
1001681411	890.000	403.697	9408934	02		
1001681411	890,000	403.697	9408934	03		
1001681412	890.000	403.697	9408935	01		
1001681412	890.000	403.697	9408935	02		!
1001681412	890.000	403.697	9408935	03		1
4. 040000						

Lot: 9408934

Iensile - Room Temperature (US)

		Ultimate	Ultimate (KSI)		SI)	Elongati	on (%)	Report
Direction	Tests	Min	Max	Min	Max	Min	Max	
LT	02	79.5	79.9	70.1	70.3	12.5	13.0	

P-860-1550 REVISED: 10 2014

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Maleilala Testing Laboratory

Constellium Rolled Products Ravenswood, LLC

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P 90723 PARAMOUNT CA										D	OAK BROOK IL 60523						
T	US										т	ÚŠ					
0	71.5										٥						
A M CAS	ILE		10606	831	4075		1	INCLUS	SION	4	Seria	al:201	80104-0	11060683	1	Pg 2of3	
CUSTON	MER PL	JRCHA	SE OR	DER	NO. & ITE	M	C	onstell	ium	ORDE	R NO.			CERTIF	ICATIO	NC	
448875							22	28501				"Cons	tellium R	olled Prod	ucts, h	oreby certif	lies the
ALLOY	CLA		EMPER				DTH		LENGTH			metal shipped under this order h inspected and found in conformance			mance wit	h the	
7075				000 in 5 mm				144.50000 in 3,670 mm		requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard							
TEMOR												Gen	eral Tern	ns and Co	nditions	of Sales.	Test
SPEC PL	ATE, S IISH	AWED										rep	orts are	on file., su	biect to	o examinati avenswood	ion."
CUSTON	IER SP	ECIFIC	ATION											859 Cent	tury Ro	ad	
AMS 404			71151										RAVEN	P.O. B SWOOD,		164 USA	
PART NU	MBER				B/L NUN	BFR		DATE S	SHIE	PED							
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340.000				0006	PIECES	GOV	1. 60	NTRA	SIN	IO.				ï			
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Tensile -	Room	Tempe	rature	(S1)													
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Оге		SI 0.07	FE 0.15	CU 1 40	MN 0.04	MG 2.59	O.22	ZN 5.4		TI	ZR						
		0.01	0.15	1.40	0.04	2.33	0.22	5.4	3	0.04	0.00						
THERS	-EACH	: .05 M	AX. OT	HER	TOTAL:	.15 M.	AX. A	L REM	AINE	DER				i			
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II materi	al con	lained	in this	lot w	as cast a	nd may	aufact	lurad in	. Abe	LICA				4			
ot: 94	0893	5	11, 11,113	100 111	35 Cast al	IG IIIai	iuiaci	ured ir	1 the	USA							_
ensile - l	Room	Tempe	rature	(US)													
		,			(KSI)		Yield	(KSI)			Elong	gation	(%)	Repo	ort		
Direc	ction	Tests	M	in	Max		Min		Max		Min		Max			-	_
LT		02	80.1).7	80.7		71.1		71.	4	12.5		13.0				_
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P-860-155D REVISED: 10 2014



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Constellium Rolled Products

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S			TLE &								S O L	A M CASTLE 1420 KENSINGTON ROAD, SUITE 220			
P		AMOL	JNT C								D	OAK BROOK IL 60523			
D										L	0				
AMC	ASTLE		110606	831	4075			INCLU	5101	١	Seri	ial:20180104-0110606831 Pg 3of3			
CUST 44887	OMER PU	JRCHA	SE OR	DER	NO. & ITE	M		Constell 228501	lium	ORDE	R NO.	CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been			
ALLO 7075	Y CLA				UGE WIDTH 6000 in 48.500 75 mm 1,232 i			000 in 14		LENGTH 144.50000 in 3,670 mm		inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard			
SPEC	ORDEREI PLATE, S FINISH											General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Revensivoed, LLC 859 Century Road			
CUST AMS 4	OMER SP 4045K	ECIFIC	CATION	ı	N.J.		-					P.O. BOX 68 RAVENSWOOD, WV 26164 USA			
PART 75211	NUMBER 4				B/L NUM 92452	BER		DATE 01/04/2				Steve Soul			
	HIPPED 000 LB			O. OF 00006	PIECES	GOV	T. C	ONTRA	CTN	10.		Steve Good - Leboratory Manager			
Tensil	le - Room	Tempe	erature	(SI)											
_			Ĺ	Jitimat	e (N/MM2	2)	Yi	eld (N/N	1M2)		Elo	ngalion (%) Report			
_	Direction	Tests		Ain	Max		Mi		M		Min				
	<u>.T</u>	02		556	556		49	0	49	2	12.	513.0			
Chemi	istry (Acti	ual)													
		SI	FE	CU	MN	MG	CF	2 2	ı	TI	ZR				
Core		0.07	0.15	1.40	0.04	2.59	0.2	22 5.4	43	0.04	0.00	0			
OTHE	RS-EACH	: .05 M	AX. O	THERS	S TOTAL:	.15 M	AX.	AL REM	AIN	DER					
		_													
All ma	terial con	tained	in this	lot w	as cast ar	nd mar	nufa	ctured i	n th	e USA					
	CA-15403A														
THIS	S TEST RE	PORT S	SHALL I	NOT B	E REPROD	UCED	EXC	EPT IN F	ULL,	WITHO	UT TH	E WRITTEN APPROVAL OF THE LABORATORY R FRAUDULENT STATEMENTS OR ENTRIES ON			
			Т	HE CE	RTIFICATE	CHEMIS	BE I	PUNISHE	D AS	RKSPAR	DNY U	INDER FEDERAL LAW.			
			V	VHEN	FRACTURE	TOUG	HNE	SS TEST	RE	QUIRED.	TEST	BY WEIGHT ED PER ASTM E399			
				W	HEN TENS	ILE TES	ST A	EQUIRED 09057), TE	STED P	ER AS	TM E8; B557			
Merc	ury is not	a norm	ai conta	minan	t in alumir	menuf	oys : actu	and noith re of our CERTIFIC	bto et u	nèrcury i duct.	nor an	y of its compounds were utilized in the			

P-860-1550 REVISED: 10 2014

SHIP TO:

A M CASTLE & CO 14001 ORANGE AVE P.O. BOX 1402 PARAMOUNT, CA 90723

SOLD TO:

AM CASTLE & CO- SOLD TO 1420 KENSINGTON RD SUITE 220 OAK BROOK, IL 60523

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215 Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number 4481839

CUSTOMER PO NUMBER 438454-1	R: W	ORK PACKAC	7500	MER PART	NUMBER:	1		RUN/LOAD:	GOVT CONTRACT NUMBER:		
1244225-1		SHIP DATE	-2017 70	-	BARE	TEMPER T651	RY	PRODUCT D		ON;	
WEIGHT SHIPPED: 3198 LB	12 PCS		2069553		GAUGE: 0.3750 IN	9:5250 M	1	18.500 IN	91.9 MM)	144.500 IN	(3670.3 MM)

Certified Specifications

MHU 2157346: LOT 245158B1: 12 pieces;

AMS 4045/RevL CMMP 025/RevV

AMS-QQ-A-250/12/RevA

ASTM B 209/Rev14

Test Gode: 1512

Lot: 245158B1

Cast 534

Drop 25

Test Results Ingot 5

Melted in USA

(ASTM E8/8557)

(EN 2002-1)

Tensile:

Temper

T651 LT / 3 (Min:Max)

Dir 1 # Tests

Ultimate KSI (MPA) 85.5:85.8

Yield KSI (MPA) 75.8:76.0

5.8

Elongation % 13.3:13.5

0.02

(590:592) (523:524)

(ASTM E1251)

Chemistry: SI Actual(w:%) 0.10

FĘ CU MN 0.17 1.5 0.04 MG CR 2.5 0.19 ZN

0.03

TI ZR

0.01

OTHER TOT 0.03

ALLOY LIMITS

SI FE CU MN MG CR ZN TI ZR OTHER MAX 7075 MIN(wt%) 0.00 0.00 1.2 0.00 2.1 0.18 5.1 0.00 0.00 0.00 EACH 0.05 MAX(W196) 0.40 0.50 2.0 0.30 2.9 0.28 6.1 0.20 0.05 0.05 TOT 0.15

> ORDER COMMENTS AMC CA-15409 R 3

> Aluminum Remainder



Trentwood Works - Spokane, WA 99215 Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number 4481839

CERTIFICATION

Kaiser Aluminum, Trentwood Works, is 150 9001, AS9100, and ISQ 14001 certified, and hereby destifies that all material shipped under this order:

*has been inspected, tested, and found to be in conformance with the requirements of the specification included herein.

All test equipment and measuring devices are calibrated and certified in econformed applicable specification. For material thicknesses outside specification limits, mechanical properties are as shown needs and chemical connection meets specification requirements. Reported stongation values have been measured as elongation at fracture.

*was material in the United States of America or a qualifying country per DFARS 225.872-16), was manufactured in the United States of America, and meets the sequirements of DFARS 252.225 for

was melted in the United States of America or a qualifying country par DFARS 225.872-1tal), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content.

It is not because the compliance with AMS 2772, where applicable is mercury free, within the limits of detection of ASTM 812.15 (< 1ppm).

It is no compliance with Birds 2, European United Detection of ASTM 812.15 (< 1ppm).

It is no compliance with Birdspean Chemical Agency, ECHA, REACH regulations, (EC) No 1907/2008, and Yelser regulatly monitors these regulations for updates.

It is free of weld repair.

In the Conflict Minerals, as defined in Section 15.2 of the Dodd-Frank Act.

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JAMES HEMENWAY, TECHNICAL PROCESS MANAGER

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